

We claim:

1. A method for filtering contaminated air, which comprises:

passing contaminated air through a filter and separating contaminants by consecutively:

separating grease and water;

drying air still containing a residual moisture; and

adsorbing odors.

2. The method according to claim 1, which further comprises carrying out the separating, drying, and adsorbing steps within a filter housing.

3. The method according to claim 1, which further comprises carrying out the drying step by drying the air with at least one of the group consisting of zeolites having a higher water affinity than active carbon, silicate gel, slowly dissolving anorganic salts, and polymer-based adsorbers.

4. The method according to claim 1, which further comprises carrying out the drying step by drying the air with materials selected from at least one of the group consisting of zeolites having a higher water affinity than active carbon, silicate

gel, dissolving anorganic salts, and polymer-based adsorbers.

5. The method according to claim 1, which further comprises carrying out the adsorbing step utilizing at least one of active carbon and zeolites.

6. The method according to claim 1, which further comprises collecting and one of cyclically and continuously removing accumulated liquid through a directly connected line.

7. The method according to claim 3, which further comprises collecting and one of cyclically and continuously removing accumulated liquid through a directly connected line.

8. A device for carrying out the method of claim 1, wherein:

a plurality of filter elements are provided for passing the contaminated air therethrough in an airflow direction and filter the air, said elements including a vortex filter, a grease separation filter, an air drying filter, and an odor filter consecutively disposed in said airflow direction.

9. The device according to claim 8, wherein said device is a household fume exhaust device.

10. The device according to claim 8, wherein said grease

separation filter is formed from expanded metal.

11. The device according to claim 8, further comprising:

a filter housing; and

said air drying filter and said odor filter being combined in a filter cartridge replaceably disposed at said filter housing.

12. The device according to claim 8, wherein said vortex filter, said grease separation filter, said air drying filter, and said odor filter are combined in a filter cartridge.

13. The device according to claim 8, wherein said vortex filter has at least one discharge opening for discharging the grease and water separated in said vortex filter.

14. The device according to claim 13, wherein said vortex filter has at least one discharge opening for discharging the grease and water separated in said vortex filter.

15. The device according to claim 8, wherein that said air drying filter contains structures at which the contaminated air passes, said structures being selected from at least one of the group consisting of zeolites with a higher water

affinity than active carbon, silicate gel, dissolving anorganic salts, and polymer-based absorbers.

16. The device according to claim 12, wherein that said air drying filter contains structures at which the contaminated air passes, said structures being selected from at least one of the group consisting of zeolites with a higher water affinity than active carbon, silicate gel, dissolving anorganic salts, and polymer-based absorbers.

17. The device according to claim 12, wherein said air drying filter has salt crystals and an open-pored plastic foam material holding said salt crystals in position.

18. The device according to claim 17, wherein said plastic foam material is open cell polyurethane foam.

19. The device according to claim 15, wherein:

said vortex filter has at least one discharge opening for discharging the grease and water separated in said vortex filter; and

a salt solution accumulating in said air drying filter is discharged by way of said discharge opening.

20. The device according to claim 16, wherein:

said vortex filter has at least one discharge opening for discharging the grease and water separated in said vortex filter; and

a salt solution accumulating in said air drying filter is discharged by way of said discharge opening.

21. The device according to claim 20, further comprising at least one of a collecting container and a drain line into which said discharge opening opens.

22. The device according to claim 14, further comprising at least one of a collecting container and a drain line into which said discharge opening opens.

23. The device according to claim 11, wherein said filter cartridge has a fill level indicator for a salt region of said cartridge.

24. The device according to claim 12, wherein said filter cartridge has a fill level indicator for a salt region of said cartridge.

25. An air filtering device, comprising:

a plurality of filter elements filtering contaminated air passed therethrough in an airflow direction, said elements including a vortex filter, a grease separation filter, an air drying filter, and an odor filter disposed consecutively in said airflow direction and thereby separating contaminants by consecutively separating grease and water, drying air still containing a residual moisture, and adsorbing odors.

26. The device according to claim 25, wherein said grease separation filter is formed from expanded metal.

27. The device according to claim 25, further comprising:

a filter housing; and

said air drying filter and said odor filter being combined in a filter cartridge replaceably disposed at said filter housing.

28. The device according to claim 25, wherein said vortex filter, said grease separation filter, said air drying filter, and said odor filter are combined in a filter cartridge.

29. The device according to claim 25, wherein said vortex filter has at least one discharge opening for discharging the

grease and water separated in said vortex filter.

30. The device according to claim 25, wherein that said air drying filter contains structures at which the contaminated air passes, said structures being selected from at least one of the group consisting of zeolites with a higher water affinity than active carbon, silicate gel, dissolving anorganic salts, and polymer-based absorbers.

31. The device according to claim 28, wherein that said air drying filter contains structures at which the contaminated air passes, said structures being selected from at least one of the group consisting of zeolites with a higher water affinity than active carbon, silicate gel, dissolving anorganic salts, and polymer-based absorbers.

32. The device according to claim 28, wherein said air drying filter has salt crystals and an open-pored plastic foam material holding said salt crystals in position.

33. The device according to claim 32, wherein said plastic foam material is open cell polyurethane foam.

34. The device according to claim 30, wherein:

said vortex filter has at least one discharge opening for

discharging the grease and water separated in said vortex filter; and

a salt solution accumulating in said air drying filter is discharged by way of said discharge opening.

35. The device according to claim 31, wherein:

said vortex filter has at least one discharge opening for discharging the grease and water separated in said vortex filter; and

a salt solution accumulating in said air drying filter is discharged by way of said discharge opening.

36. The device according to claim 29, further comprising at least one of a collecting container and a drain line into which said discharge opening opens

37. The device according to claim 35, further comprising at least one of a collecting container and a drain line into which said discharge opening opens

38. The device according to claim 27, wherein said filter cartridge has a fill level indicator for a salt region of said cartridge.



39. The device according to claim 28, wherein said filter cartridge has a fill level indicator for a salt region of said cartridge.